



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/459,022	12/10/99	CHENG	M 38-21 (15084)

THOMAS P MCBRIDE  
PATENT DEPARTMENT CENTRAL  
MONSANTO/GD SEARLE  
POST OFFICE BOX 5110  
CHICAGO IL 60680-5110

HM12/0228

EXAMINER	
MUHAMMAD, V	
ART UNIT	PAPER NUMBER

1649  
DATE MAILED:

4  
02/28/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/459,022

Applicant(s)

Cheng

Examiner

Muhammad

Group Art Unit

1638



☐ Responsive to communication(s) filed on \_\_\_\_\_.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-16 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-16 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 1638

Claims 1-16 are pending

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as their invention.

The recitation of "identifying" as set forth in claim 1 is vague and indefinite. It is unclear from the specification what applicant intends to convey by the term "identifying". One of skill in the art would not be reasonably apprised of applicant's use of the term and could therefore not practice the invention.

The recitation of the term "limitation" in claim 3 is confusing in the manner applicant is using the term. Applicant could obviate this rejection by dropping "limitation" and amending claim to recite -- co-culture comprise removal of moisture--.

Claim 1 recites the limitation "said Agrobacterium-inoculated explant". There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

- A person shall be entitled to a patent unless --
- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
  - (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1638

Claims 1,2,10, 12 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiei et al. The claims are drawn to a method of producing a fertile transgenic plant comprising the steps of introducing genetic components into the genome of the plant, preculturing plant prior to the introduction of genetic components, and co-culturing infected plant in the presence of *Agrobacterium*. The claims are further drawn to the transgenic plant being a monocot wherein, the monocot is rice.

Hiei et al. disclose a method for obtaining transgenic rice plants via *Agrobacterium*-mediated transformation. The method comprises co-culture of immature embryos, shoot apices, root segments, seedlings and scutella with *Agrobacterium tumefaciens* containing desired genetic components, selecting transformed cells (tissues), and a regeneration step (pages 272-274).

The method of Hiei is the same as the claimed method. Since the office does not have the facilities for examining and comparing applicant's method of transformation with those of the prior art, the burden is on applicant to show a novel and unobvious difference between the claimed method and the method of the prior art. Applicant is directed to In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977), In re Brown, 459 F.2d 531, 173 USPQ 685 (CCPA 1972), and In re Marosi, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983).

Claims 1,2, 11 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Di et al. The claims are drawn to a method of producing a fertile transgenic plant comprising the steps of introducing genetic components into the genome of the plant, preculturing plant prior to the introduction of genetic components, co-culturing infected plant in the presence of *Agrobacterium*. The claims are further drawn to the transgenic plant being a dicot wherein, the dicot is soybean.

Di et al. disclose a method for the *Agrobacterium*-mediated transformation of soybean comprising co-culturing tissue in the presence of *Agrobacterium*. Soybean (Abstract) cotyledonary nodes were transformed with the bean pod mottle virus coat protein precursor gene via *Agrobacterium*-mediated transformation (pages 747-748).

The method of Di et al is the same as the claimed method. Since the office does not have the facilities for examining and comparing applicant's method of transformation with those of the

Art Unit: 1638

prior art, the burden is on applicant to show a novel and unobvious difference between the claimed method and the method of the prior art. Applicant is directed to In re Best, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977), In re Brown, 459 F.2d 531, 173 USPQ 685 (CCPA 1972), and In re Marosi, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983).

### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiei et al. The claims are drawn to a method of producing a fertile transgenic plant comprising the steps of introducing genetic components into the genome of the plant, preculturing plant prior to the introduction of genetic components, co-culturing infected plant in the presence of *Agrobacterium* and reducing the weight of the explant by between 30-50% over from 1 hour to six days.

Hiei et al. disclose a method for obtaining transgenic rice plants via *Agrobacterium*-mediated transformation. The method comprises co-culture of immature embryos, shoot apices, root segments, seedlings and scutella with *Agrobacterium tumefaciens* containing desired genetic components, selecting transformed cells (tissues), and a regeneration step.

The method of Hiei et al does not distinctly point out the removal of moisture from the *Agrobacterium*-inoculated explant however, it is well known to those of skill in the art to remove excess weight from the explant or calli by applying Whatman's paper or other absorbency material such as Nitrocellulose, prior to placing explant, in regeneration or selection media.

Art Unit: 1638

No claim is allowed.


*Summary*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Muhammad whose telephone number is (703) 306-4539. The examiner can normally be reached on Monday through Friday from 8:30am to 5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mrs. Lynette F. Smith, can be reached on (703) 308-3909. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-0196.

Papers related to this application may be submitted to group 1600 by facsimile transmission by dialing (703) 305-7401. Papers should be faxed to Group 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989).

Victor Muhammad

February 25, 2000

  
LYNETTE R. F. SMITH  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600